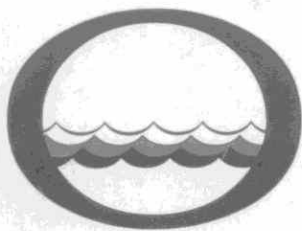


STANDARDS DEVELOPMENT BRANCH OMCE
36936000010314



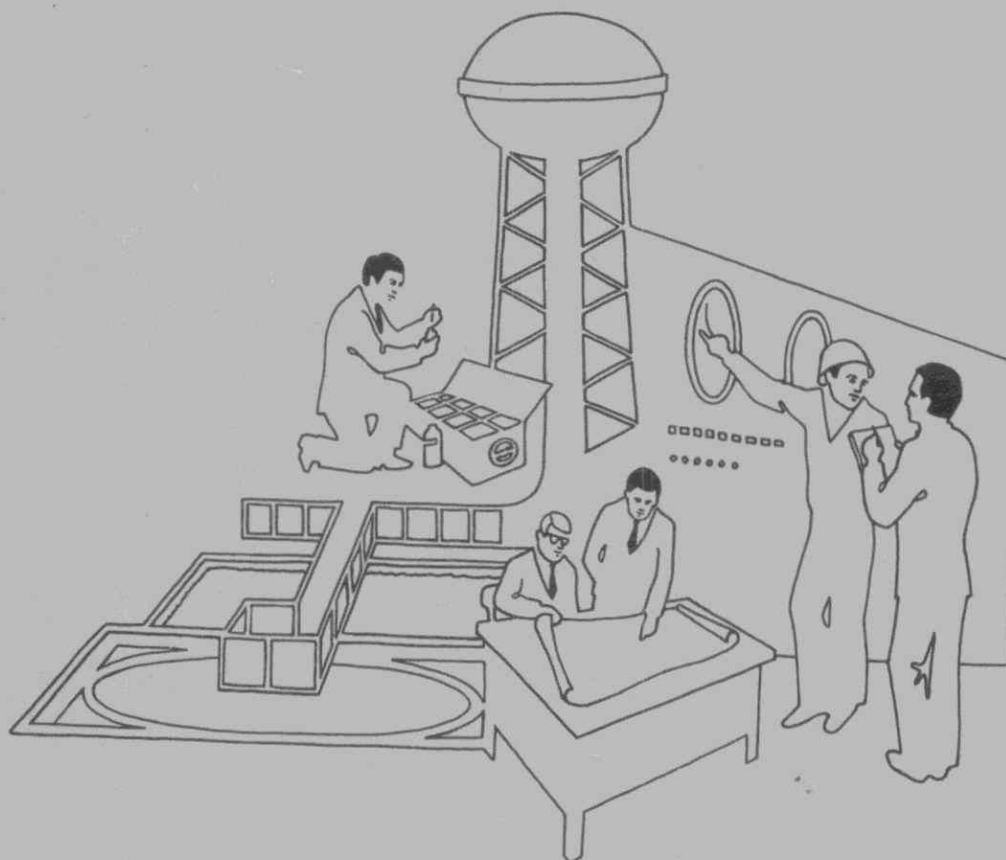
Water management in Ontario

Ontario
Water Resources
Commission

District
Engineers
Branch

W.Q. LIB
GRAND R. (23)

1970



POLLUTION SURVEY

TOWNSHIP OF WOOLWICH

HAMLET OF FLORADALE

TD
380
.F56
1970
MOE

TOWNSHIP OF WOOLWICH
HAMLET OF FLORADALE (COUNTY OF WATERLOO)
1970

Copyright Provisions and Restrictions on Copying:

This Ontario Ministry of the Environment work is protected by Crown copyright (unless otherwise indicated), which is held by the Queen's Printer for Ontario. It may be reproduced for non-commercial purposes if credit is given and Crown copyright is acknowledged.

It may not be reproduced, in all or in part, for any commercial purpose except under a licence from the Queen's Printer for Ontario.

For information on reproducing Government of Ontario works, please contact ServiceOntario Publications at copyright@ontario.ca

TD
380
.F56
1970

Pollution survey, township of
Woolwich, hamlet of Floradale.

80522

POLLUTION SURVEY

TOWNSHIP OF WOOLWICH

Hamlet of Floradale

At the request of the Conservation Branch, Department of Energy and Resources Management, a pollution survey of the Hamlet of Floradale was carried out on May 11, 1970, in company with Mr. Paul Stone, District Inspector, Waterloo County Health Unit.

Of seven storm sewers located during the inspection all were found to be dry. (See attached map.)

SAMPLE ANALYSES

Three chemical and three bacteriological samples were obtained from Canagagigue Creek (see attached map). The samples were obtained upstream and downstream from the Hamlet.

Bacteriological

The results of the bacteriological samples obtained during the inspection are as follows:-

	<u>Fecal Coliforms</u> <u>per 100 ml</u>	<u>Coliforms</u> <u>per 100 ml</u>
East Branch of Canagagigue Creek at County Rd. #10	32	90
East Branch of Canagagigue Creek at Mouth	20	230
Main Branch of Canagagigue Creek Downstream from Hamlet	12	100

The above indicates that bacteriologically the creek is satisfactory.

Chemical

The results of the chemical samples obtained during the inspection are as follows:-

			<u>N I T R O G E N</u>				<u>Phosphorous</u>	
		<u>Susp.</u>	<u>Free</u>	<u>Total</u>			<u>as P</u>	
	<u>BOD₅</u>	<u>Solids</u>	<u>Ammonia</u>	<u>Kjeldahl</u>	<u>Nitrite</u>	<u>Nitrate</u>	<u>Total</u>	<u>Soluble</u>
East Br. Canagagigue Cr. at County Rd.	1.0	10	0.03	0.26	0.032	3.2	0.012	0.004
East Br. Canagagigue Cr. at Mouth	1.0	10	0.05	0.30	0.039	3.0	0.019	0.007
Main Br. Cana- gagigue Cr. Downstream from Hamlet	1.2	10	0.07	0.37	0.030	3.1	0.023	0.005

Note: All analyses reported in ppm.

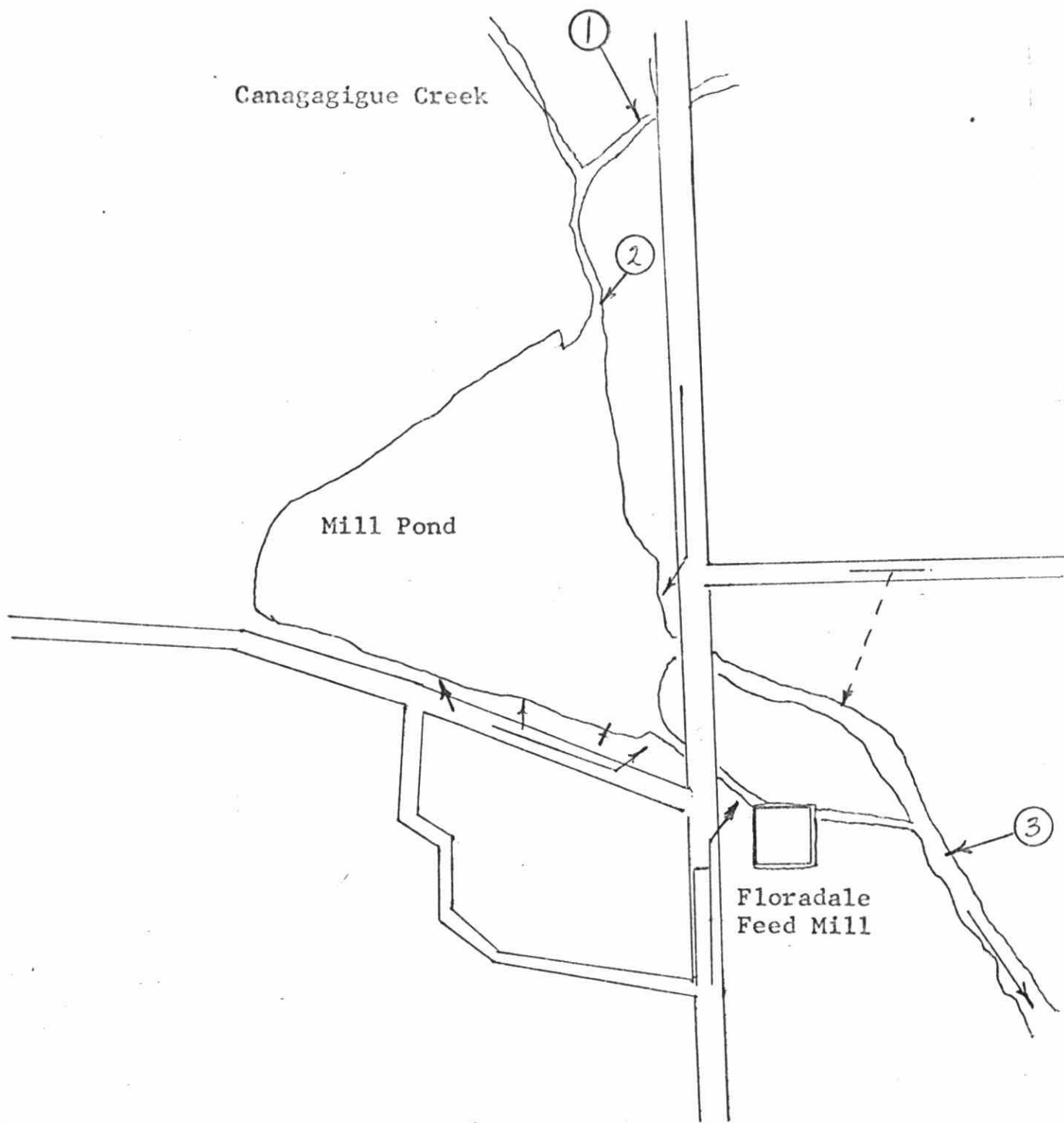
Although the BOD and suspended solids concentrations are within the recommended levels, the nitrogen and phosphorous concentrations are above these levels.

The above would indicate that enrichment of the water-course has occurred and in combination with other factors such as temperature, water depth, etc. could create algae blooms. Since the bacteriological and BOD levels are within satisfactory limits the above enrichment would more than likely be due to surface runoff from area farm fields.

DISCUSSION

In discussions with the Waterloo County Health Unit they advised that to their knowledge the individual septic tank systems serving the Hamlet of Floradale were functioning satisfactorily and that any problems that did arise were of an individual nature as opposed to a general condition.

From the observations made during this investigation and the chemical and bacteriological samples obtained it would appear that pollution of the Canagagigue Creek by domestic waste is not occurring, however, enrichment of the water is evident.



PLAN OF FLORADALE

Legend.

———— Storm Sewer Outfall



Sampling Points